



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,151	04/18/2001	Paul E. Bender	QCPA655C1B1	7745
23696	7590	04/15/2005	EXAMINER	
Qualcomm Incorporated Patents Department 5775 Morehouse Drive San Diego, CA 92121-1714			KADING, JOSHUA A	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/837,151

Applicant(s)

BENDER ET AL.

Examiner

Joshua Kading

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 7,9-18 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7,9-18 and 20-23 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claim 15 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is  
5 required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 14, from which claim 15 depends, discloses exactly (explicitly and implicitly) what claim 15 discloses. Specifically, line 3 discloses the two or more access points in communication with a remote user and lines 4-6 is almost verbatim what is disclosed in claim 15. There  
10 appears to be no further limiting disclosure in claim 15 that is not already disclosed in claim 14.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that  
15 form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- 20 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 25 3. Claims 7, 9, 11, 18, and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 5,958,018, Eng et al. (Eng).

4. Regarding claims 7 and 11, Eng discloses, "a wireless data communication system apparatus, comprising: a plurality of routers (*figure 22, element 27 as read in col. 8, lines 54-62 where an Access Processor is an Access Point as described in col. 1, lines 25-26*); a plurality of network access points (*figure 1, elements 11*), each of said plurality of network access points being configured to: communicate with at least two of said plurality of routers (*figure 1, element 10 where each AP can communicate with all other APs and thus other routers*); and communicate with at least one remote user (*figure 1, elements m, i.e. the mobile units are in clear communication with the APs*); and a plurality of control points, each of said plurality of control points being co-located with one of said plurality of network access points (*figure 22, element 25 as read in col. 3, lines 59-60 where each AP has the control modules 25*); wherein each of the control points is configured to control communications between a remote user and at least two of said plurality of network access points (*col. 7, lines 60-col. 8, lines 1-28, specifically lines 14-19*)."

5. Regarding claim 9, Eng discloses, "the wireless data communication system apparatus as claimed in claim 7, wherein each of said plurality of control points is configured to transfer control over said at least one of the plurality of network access points to a different control point (*col. 8, lines 43-49 whereby switching the cell to the appropriate node, the control point has effectively switched control to another control point*)."

6. Regarding claim 22, Eng discloses, "the wireless data communication system apparatus as claimed in claim 7, wherein each of said plurality of network access points are configured to communicate with at least two of a plurality of routers (*figure 15, "broadcasting" step allows the APs to communicate with all other APs and thus their routers*)."

7. Regarding claim 23, Eng discloses, "the wireless data communication system apparatus as claimed in claim 22, further comprising: a plurality of home agents, each of said plurality of home agents being associated with one of said plurality of routers (*col. 7, lines 19-26 whereby sending the "home update" message, the newly associated AP has effectively become the home agent of the mobile*)."

8. Regarding claim 18, Eng discloses, "a method for data flow control in a distributed data communication system, comprising: receiving at a network access point data intended for a remote user (*figure 15, "receipt of MAC frame"*); and transmitting from the network access point the received data to the remote user under a control of a control point (*figure 15, "invoke...transmit" step*), the control point being co-located with a network access point different from said transmitting network access point (*figures 2 and 22 where each AP has a control point co-located with it*)."

9. Regarding claim 20, Eng discloses, "the method as claimed in claim 18, further comprising transferring control from the control point to a second control point (*col. 8,*

*lines 43-49 whereby switching the cell to the appropriate node, the control point has effectively switched control to another control point).*"

10. Regarding claim 21, Eng discloses, "the method as claimed in claim 20, wherein  
5 the second control point is co-located with said transmitting network access point (*figure 2 where since each AP has a corresponding control point and it is completely possible for a roaming mobile to be under the control of the same AP has the transmitting AP, e.g.  $m_k$  and  $m_n$  are communicating where at least one is roaming, the second control point can be co-located with the transmitting AP).*"

10

11. Claims 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,473,413 B1, Chiou et al. (Chiou).

12. It should be noted that although Chiou has a filing date after the earliest priority date of the instant application, the subject matter of claims 12, 13, and 10 (as seen  
15 below) cannot claim the benefit of this priority because the subject matter is not disclosed in either of the priority documents. Therefore, the subject matter of claims 12, 13, and 10 is restricted to the filing date of the instant application.

13. Regarding claim 12, Chiou discloses, "a method for data flow control in a  
20 distributed data communication system, comprising: receiving at a router data intended for a remote user (*col. 6, lines 66-col. 7, lines 1-3*); and transmitting the received data to

a foreign agent (*col. 7, lines 3-4*), the foreign agent being co-located with a network access point (*figure 2, elements 15, 17, and 20*)."

14. Regarding claim 13, Chiou discloses, "the method as claimed in claim 12,

5 wherein said transmitting the received data to a foreign agent, comprises: providing said received data intended for the remote user to a home agent, the home agent being associated with the router (*figure 3, element 305*)."

***Claim Rejections - 35 USC § 103***

10 15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

15 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eng et al. in view of Chiou et al.

20 17. Regarding claim 10, Eng discloses the apparatus of claim 7. However, Eng lacks what Chiou discloses, "a plurality of foreign agents, each of said plurality of foreign agents being co-located with one of said plurality of network access points (*figure 2, elements 15 and 31*)."

25 It would have been obvious to one of ordinary skill in the art at the time of invention to include the foreign agents with the access points for the purpose of keeping a record of the mobile station's corresponding addresses (*Chiou, col. 4, lines 7-12*). The motivation for keeping a registration table is so that the mobile station can

roam into different areas controlled by different access points and still communicate  
(*Chiou, figure 3*).

18. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

5 Eng et al.

19. Regarding claim 14, Eng discloses, "a method for data flow control in a  
distributed data communication system, comprising: receiving at [a] network access  
points data intended for a remote user (*figure 15, "receipt of MAC frame"*); and

transmitting from the [a] network access points the received data to the remote user  
10 under control of a control point (*figure 15, "invoke...transmit" step*), the control point  
being co-located with a one of the network access points (*figures 2 and 22 where each  
AP has a control point co-located with it*)."

20. However, Eng explicitly lacks "two or more" network access points receiving data  
for a user and transmitting from the "two or more" access points to the user. Although

15 Eng does not explicitly disclose receiving data at two or more access points as well as  
transmitting from these points, Eng does disclose the receiving and transmitting at an  
access point as noted above. Eng further discloses the network contains more than one  
remote user and more than one access point.

21. Therefore, it would have been obvious to one of ordinary skill in the art at the

20 time of invention to have two or more access points receiving data and two or more  
access points transmitting data because it is strongly implied that what can happen to  
one access point can happen at all access points. Further, there is no reason to believe



from Eng that only one access point in the system can receive data from a user and transmit data to a user. The motivation for using two or more access points is so that if a mobile starts to roam into a different area controlled by a different access point, the mobile will be handed off to that access point and communication can continue (*Eng,*

5 *col. 6, lines 22-33*).

22. If applicant should disagree that claim 15 fails to further limit claim 14, the following rejection will be used.

23. Regarding claim 15, Eng further discloses, "wherein transmitting from the two or  
10 more network access points the received data to the remote user under a control of a control point comprises: transmitting from the two or more network access points the received data to the remote user under a control of the control point (*figure 15, "invoke...transmit" step*), the control point being co-located with one of the two or more network access points in communication with the remote user (*figures 2 and 22 where*  
15 *each AP has a control point co-located with it*)."

24. Regarding claim 16, Eng further discloses, "transferring control from the control point to a second control point (*col. 8, lines 43-49 whereby switching the cell to the appropriate node, the control point has effectively switched control to another control*  
20 *point*)."

It would have been obvious to one of ordinary skill in the art at the time of invention to include the second control point for the same reasons and motivation as in claim 14.

25. Regarding claim 17, Eng further discloses, "wherein the second control point is co-located with said transmitting network access point (*figure 2 where since each AP has a corresponding control point and it is completely possible for a roaming mobile to*  
5 *be under the control of the same AP has the transmitting AP, e.g.  $m_k$  and  $m_n$  are communicating where at least one is roaming, the second control point can be co-located with the transmitting AP).*" It would have been obvious to one of ordinary skill in the art at the time of invention to include the second control point co-located with the access point for the same reasons and motivation as in claim 16.

10

### ***Response to Arguments***

26. Applicant's arguments with respect to claims 7, 9-18, and 20-23 have been considered but are moot in view of the new ground(s) of rejection.

15

### ***Conclusion***

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

20

28. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 2661

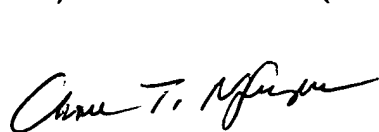
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later  
5 than SIX MONTHS from the date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

10 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

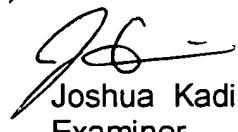
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for  
15 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

20



CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

April 11, 2005



Joshua Kading  
Examiner  
Art Unit 2661

Application/Control Number: 09/837,151  
Art Unit: 2661

Page 11